HIGH SCHOOL COMPUTER SCIENCE EDUCATION COURSE CODES
GRADES 9-12

Course Code	Course Name	Grade Levels	Description	High School Credit Options*	License/credential Required**
23011	Computer Science Applications	9-12	The main focus of this course is microcomputer operation system functions and commands. Students learn about operating system concepts, disk and file formats, disk and file management, and control and processing programs. Students learn to use utilities to sort, merge, copy, back up, and recover data. They also perform installation and execution of business applications software.	½ or 1 *Max credit = 1*	

23012	Computer Science Programming	9-12	Basic programming concepts are presented which are transferable to other programming languages. Foundational concepts and fundamentals of computer programming including logic, design, coding, structure, and controls are addressed. Careers in programming are explored and students are provided with opportunities to increase their communication, teamwork, and critical thinking skills. Business projects are used to show how programming skills are used in the business world.	½ or 1
				
				Max credit = 1
					License Code:
					  23000-Computer Science
					  ♦ 7-12 or 9-12

23015	Advanced Computer Science Programming	10-12	Advanced Computer Science Programming provides students with the knowledge and skills necessary to construct computer programs in one or more languages. Computer coding and program structure are often introduced with the BASIC language, but other computer languages, such as Visual Basic (VB), Java, Pascal, C++, and COBOL, may be used instead. Initially, students learn to structure, create, document, and debug computer programs, and as they progress, more emphasis is placed on design, style, clarity, and efficiency. Students may apply the skills they learn to relevant applications such as modeling, data management, graphics, and text-processing.	½ or 1 Max credit = 1	

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Course Code	Course Name	Grade Levels	Description	High School Credit Options*	License/credential Required**

23580	Advanced Placement Computer Science A©	10-12	Following the College Board's suggested curriculum designed to mirror college-level computer science courses, AP Computer Science A courses provide students with the logical, mathematical, and problem-solving skills needed to design structured, well-documented computer programs that provide solutions to real-world problems. This course covers such topics as programming methodology, features, and procedures; algorithms; data structures; computer systems; and programmer responsibilities.	½ or 1
				
				Max credit = 1
					License Code:
					    23000-Computer Science
					    ♦ 7-12 or 9-12

23581	Advanced Placement Computer Science AB©	10-12	Following the College Board's suggested curriculum designed to mirror college-level computer science courses, AP Computer Science AB courses (in addition to covering topics included in AP Computer Science A) provide a more formal and extensive study of program design, algorithms, data structures, and execution costs.	½ or 1 *Max credit = 1*	

*   *High school curricular requirements are spelled out in NDCC 15.1-21-02. Maximum credit refers to the maximum units of credit a student may earn for a course over four years of high school. (Example: Band - a student may be enrolled in band all four years of high school -- earning a possible total of four units of credit.)*

**   *Please refer to the second page of the teacher's North Dakota Educator's Professional license to verify which subject areas a teacher is qualified to teach. Licenses and endorsements are obtained on a teaching license from the Education Standards and Practices Board (ESPB).*
Credentials are obtained from the Department of Public Instruction (DPI) and are issued to individuals holding a current teaching license.